11. IMPLEMENTING AN EDI PILOT

Prior to implementing an EDI application with its trading partners, it is recommended that an organization conduct a small pilot of the application. In addition to the technical knowledge and experience gained, the initial success from a pilot effort is an important step in building the credibility of the EDI project team and the confidence of the users. A pilot implementation is also an effective vehicle for demonstrating to management the benefits of an EDI program, which are often strategic and difficult to quantify. A typical pilot involves converting 5 to 10 trading partners to an EDI application consisting of 1 or 2 transaction sets for a period of 4 to 6 months.

This section presents a detailed approach to implementing a pilot EDI application, using the steps listed below.

1. Establish project team
2. Determine functions to be included
3. Redesign the process
4. Recruit pilot trading partners
5. Define pilot technical architecture
6. Acquire and install hardware and software
7. Arrange for network services
8. Build interfaces to in-house application systems
9. Train users and trading partners
10. Test pilot system
11. Implement pilot system
12. Evaluate pilot system

Each of the above steps is described in further detail in the sections that follow.

1. **Establish Project Team**: In order to successfully implement an EDI pilot, an organization must have a solid support structure in place, and must commit dedicated resources, both in terms of staffing and funding, to develop and execute the EDI strategy. One of the first steps that an organization must take is to establish an EDI project team. Project team members should be drawn from all departments affected by the EDI pilot application. The EDI project team should be headed by a Project Leader who is knowledgeable and trained in EDI issues and is responsible for:

   - ➢ Planning and implementing the EDI strategy
   - ➢ Establishing project schedules
   - ➢ Planning and tracking project budgets and estimates

- ➢ Defining the roles and responsibilities of team members
- ➢ Determining the cost of implementing the EDI program
- ➢ Obtaining funding from the responsible departments

In addition, an EDI Steering Committee composed of members from top management from the affected departments should be created. The Steering Committee should be responsible for reviewing and approving the actions of the EDI project team and authorizing funding as necessary for the project team's activities.

2. **Determine Functions to be Included**: The first step in designing and implementing a pilot EDI application is to determine the functions that will to be included within the scope of the pilot. The functions selected should meet the following criteria:

   - ➢ Should be high volume, labor intensive, and paper-based, so that there will be substantial benefits in converting them to EDI
   - ➢ Should be limited in number so that they can be accommodated within one or two EDI transaction sets

3. **Redesign the Process**: Substantial benefits from implementing EDI are usually not attainable without making fundamental changes to existing business processes that were originally designed for a paper-based environment. In preparing to implement an EDI pilot, an organization should explore the numerous opportunities available to them for redesigning their processes. This will result in greater cost savings while bolstering the credibility of EDI as an effective business solution.

   Section 10, Planning the EDI Implementation, presents a detailed sequence of steps that an organization should follow when redesigning their processes.

4. **Recruit Pilot Trading Partners**: An organization should select 5 to 10 trading partners to participate in the pilot effort. These trading partners should represent a cross section of the parties with whom the organization conducts business. This will allow the organization to best observe the true impact of the EDI application on their trading partner community.

   Section 9, Trading Partner Strategy, presents a discussion on how an organization should select and implement trading partners in an EDI pilot. Similar steps may be taken to select and recruit trading partners for the EDI pilot.

5. **Define Technical Architecture**: The EDI project team should define the technical architecture, consisting of the hardware, software, and telecommunications components, that will be used for the pilot system. The EDI technology infrastructure should support the organization's current needs, and at the same time, be flexible enough to permit future expansion to other functions.

The following are some of the factors that should be considered in selecting technical components for the pilot EDI application:

Hardware Platform: The following factors, along with cost, should be taken into consideration in selecting a hardware platform for the EDI gateway for the pilot system:

Processing Speed: The hardware should be capable of accommodating the volume of data the organization exchanges with its trading partners. Projected growth in the number of trading partners, increases in the number of EDI applications, and projected business growth should be taken into consideration in determining the desired processing speed.

Storage Capacity: The hardware selected should have adequate disk capacity to store historical information on outgoing and incoming data.

Data Transfer Capabilities: If the EDI translation software will not be located on the same hardware platform as the application system, the ease and reliability of transferring data should be taken into consideration in selecting a hardware platform for the EDI gateway.

Organizational Strategy: The organization's long-term hardware strategy should also be considered. For example, if the organization is converting all its systems to a client-server environment, then the hardware selected for the EDI gateway should probably be a UNIX-based system that can be integrated with future application systems.

Backup System: As use of the EDI application grows, a backup system should be available in case of hardware or software problems or failures.

Software: If the organization does not own an EDI translation software package, it will need to examine packages that are available in the commercial marketplace. If the organization already owns an EDI translation software package, it should ensure that the package will meet the requirements of the EDI application.

Section 4, EDI Translation Software, presents a detailed discussion on determining requirements for an EDI translation software, and the process of evaluating and selecting an EDI translation software package.

Telecommunications: The EDI project team should also determine the communications requirements for the pilot project and examine the options available for the EDI pilot application.

Section 5, Communication Networks, presents a detailed discussion on the available communication network options, and the process of evaluating and selecting a communication network.

Finally, an organization should ensure that the technical infrastructure selected will accomplish its intended purpose (i.e., the electronic exchange of business documents with trading partners) at a reasonable cost. It may be a sound idea to acquire a smaller and less powerful hardware and software platform for the pilot at a low cost, and later upgrade to a more powerful system for the full scale implementation.

6. **Acquire and Install Hardware and Software**: Based on the technical architecture selected, if may be necessary for an organization to acquire and install hardware and software. The organization should ensure that these components are implemented in a timely manner for the pilot project. In addition, access to the EDI gateway should be restricted to authorized users through the use of identification numbers and passwords.

7. **Arrange for Network Services:** To exchange EDI messages with its trading partners, an organization will need to acquire network services. Several VAN or network options exist and are described in Section 5.1, Communication Network Options. An organization should obtain the most current prices for the services required by their EDI application (e.g., mailbox, character, and messages costs) and select the best alternative.

8. **Build Interfaces to In-House Application Systems**: The organization will need to modify its in-house application systems to transfer data between their EDI translation software and in-house application systems. To accomplish this, the organization will need to design and develop interfaces to perform the following functions:

   Extract data from in-house application systems and reformat it into the flat file required as input to the EDI translation software.

   Edit and validate data received from the pilot trading partners, produce an error listing (if necessary), and update the in-house application systems.

   The organization should conduct a requirements analysis and develop system specifications for each of the interfaces, as well as code, test, and implement the interfaces. In addition, the organization should ensure that its EDI gateway is in place and ready for operation. Finally, the organization should confirm that the modifications to its in-house application systems have been completed and thoroughly tested, and that its in-house application systems are able to interface properly with the EDI gateway.

9. **Train Users and Trading Partners:** The education and training of an organization's users and trading partners is vital to the success of the EDI application. Both parties should be educated as to why the organization is implementing EDI and what impact it will have on the current process. The training should cover, at a minimum, topics such as EDI technology and the EDI application, and enable both parties to operate and maintain the EDI application. Trading partners should also be provided with documentation that includes:

   Functional design and processing flow specifications for the EDI application

Implementation conventions for the transaction set(s) being used

Suggested software and network options

Implementation and testing procedures for the EDI application

10. **Test Pilot System**: The organization should conduct a series of dummy and acceptance tests with their pilot trading partners to ensure that the data being exchanged via the EDI application is both accurate and timely. First, a dummy transaction test, using fictitious data, should be performed to ensure that the data being passed between trading partners is formatted correctly and is being interpreted correctly by both parties.

    Upon successful completion of dummy tests, acceptance tests should be conducted with the pilot trading partners. The tests should simulate actual transactions and should include messages that mirror recent production data. The organization should provide the pilot trading partners with detailed procedures for the acceptance tests in advance.

    The tests should encompass all transactions that will be exchanged as part of the EDI application, and should include messages that mirror recent production data. The organization should provide the pilot trading partners with detailed procedures for the acceptance tests in advance.

11. **Implement Pilot System**: After successfully completing the dummy and acceptance tests, each trading partner should be implemented on the pilot EDI application. At that point, the organization should rely solely on the EDI application and no longer perform the process(es) being replaced.

    It is likely that many of an organization's trading partners will not be EDI capable. During the course of implementation and testing, they may encounter technical and functional questions or problems. Therefore, the organization should establish a Help Desk, staffed with personnel knowledgeable in all aspects of the EDI application, to answer any questions that trading partners may have.

12. **Evaluate Pilot System:** The organization should perform an evaluation of the pilot EDI application after the pilot system has been operational for 4 to 6 months. The evaluation should include an assessment of the following items:

    Ease of use for the organization and trading partners

    Accuracy of exchanged data

    Actual cost to transmit data

    The organization should consider the results of this evaluation when planning for the full scale implementation of the EDI application.

In order to ensure a smooth transition from a pilot EDI application to one that can be used for all trading partners, the organization must develop a comprehensive strategy for full implementation. This strategy should address possible enhancements to the EDI application and technology infrastructure, as well as organization and management issues, all of which are highly interdependent. In addition, since the success of the EDI application will ultimately be determined by the level of trading partner participation, an organization must develop a strategy for recruiting and implementing their entire trading partner community.